

Cognitive uncertainty and innovative work behavior: the moderating role of leadership

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Introduction

- Cognitive uncertainty characterizes working in the social domain.
- Sources are a.o. the unpredictability of clients and the ambivalent position between rules and professional autonomy.
- ‘Classical’ literature is negative about cognitive uncertainty (Weber, 1922; Simon, 1976), but what does it mean for innovation?
- Study among social teams in The Hague.
- New policy in The Hague: explicit focus on innovative solutions to reduce the cost of social welfare.



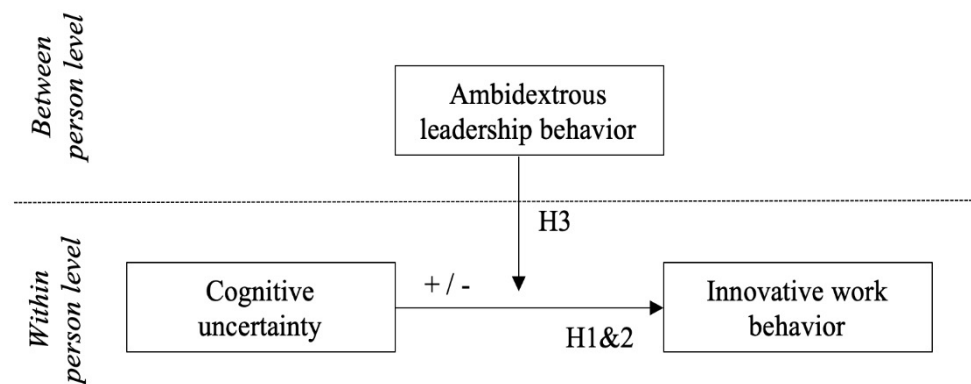
From uncertainty to innovation

- Cognitive uncertainty: experiences of incomplete, unclear or conflicting information in an employee's work (Bernards et al 2020).
- Innovation: exploring new and useful ideas and refining current processes (March 1991).
- Competing theoretical expectations:
 - Cognitive uncertainty stimulates innovative work behavior by leaving situations open and ambiguous and thus providing room to deviate from the beaten path.
 - Cognitive uncertainty hinders innovative work behavior since people faced with cognitive uncertainty seek to reduce in stead of amplify cognitive uncertainty.



Leadership

- Leadership as key mechanism to help employees manage the context of their work.
- *Situational strength theory* (Mischel 1977): especially in psychologically weak (i.e. uncertain) situations, there is much opportunity for leaders to influence behavior.
- Effective leadership matches the duality of the innovation process. So, leaders need to stimulate both leiderschap exploration and exploitation → ambidextrous leadership.



Method

Diary study (quantitative)

Daily questionnaire on innovative work behavior and cognitive uncertainty for two weeks; single questionnaire on leadership

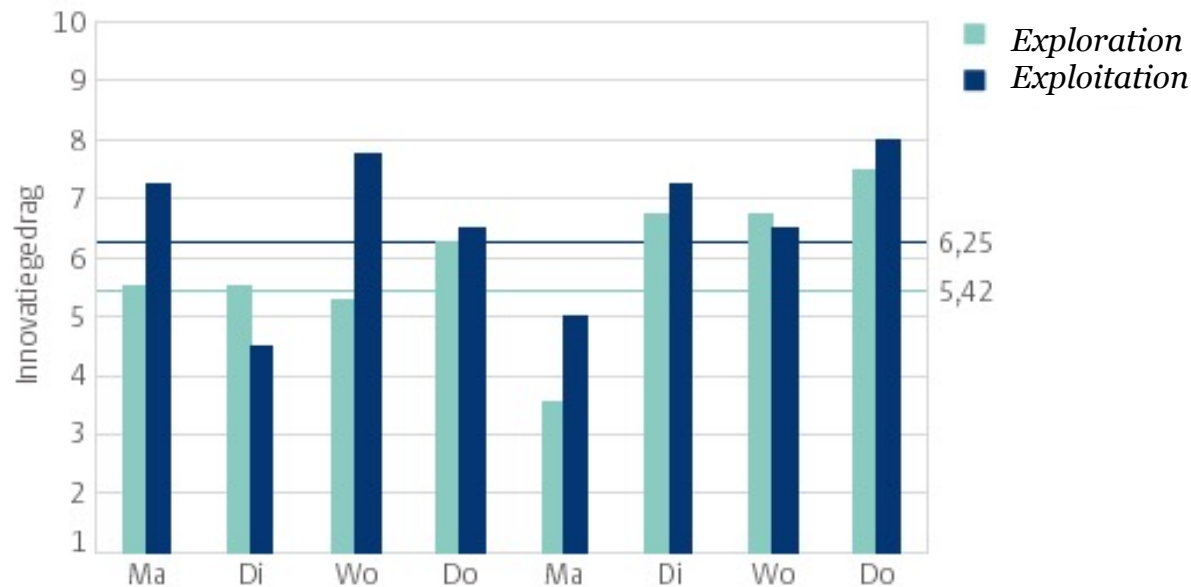
Pro's and cons:

- + Measurement per day reveals much variation
- + Analysis 'within' persons and across' days excludes disturbance by individual characteristics
- + Strong reduction of rationalization and other biases
- Greater risk of attrition of respondents
- Necessitates very short questionnaires



Data

Figuur 1. Variatie in innovatiegedrag, voorbeeld van één Wmo-casemanager



- Analysis on 369 diaries of 88 respondents
- Large variation within persons across days
- Variance at the day-level: 62% for cognitive uncertainty, 49% for innovative work behavior

Findings

Results of multi-level regression analysis predicting innovative work behavior.

Variable	Coef.	SE	z	p
Intercept	35.715	1.528	23.37	.000
Cognitive uncertainty	1.170	.333	3.52	.000
Ambidextrous leadership	.889	.399	2.23	.026
Interaction effect	.332	.097	3.43	.001

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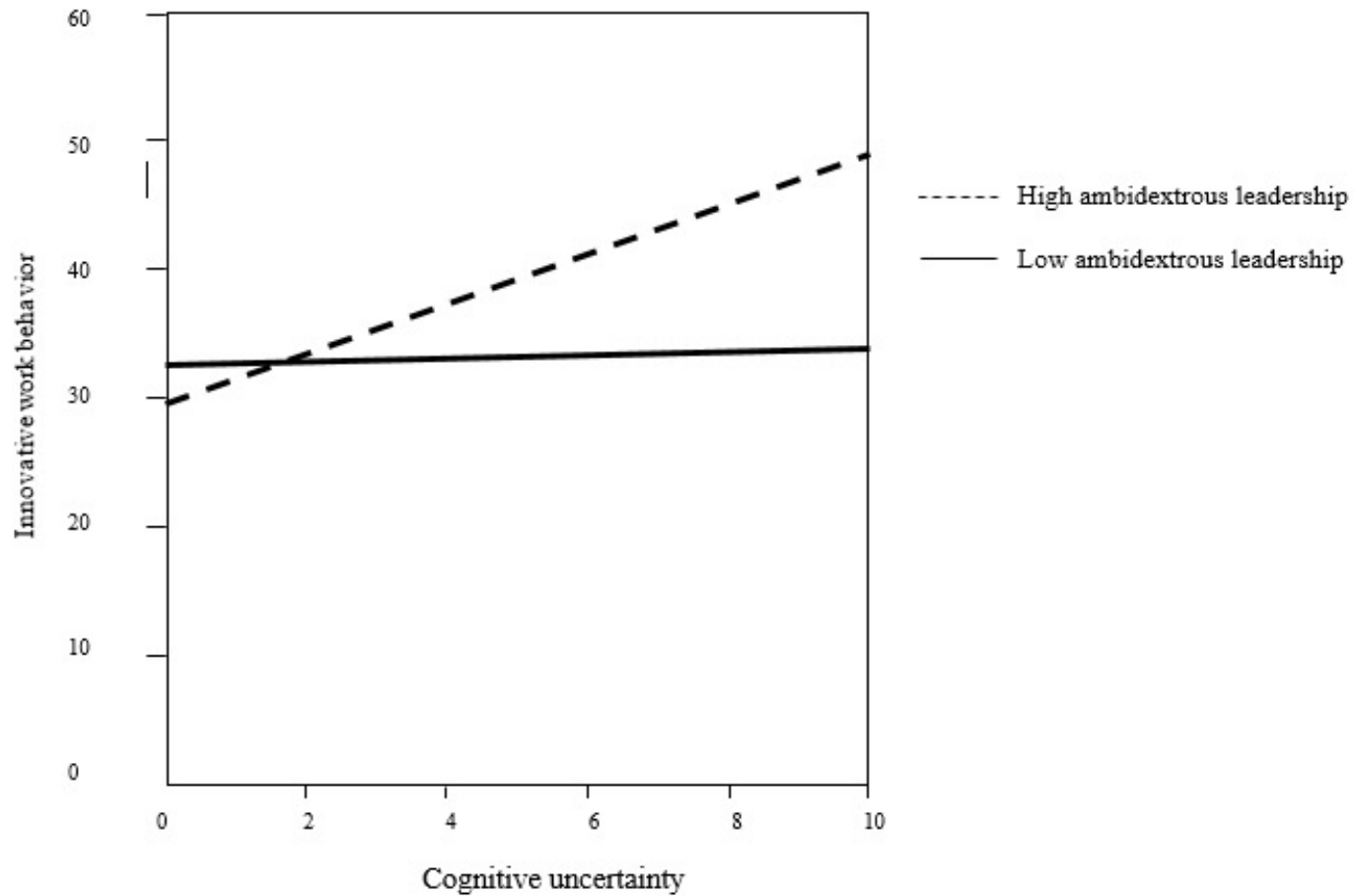
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Findings: moderation-effect



Conclusions

- Innovative work behavior and cognitive uncertainty differ strongly between persons and across days
- Cognitive uncertainty is associated with higher levels of innovative work behavior
- This relationship is strongly influenced by leadership: only when the team leader stimulates innovation, there is a positive relationship between cognitive uncertainty and innovative work behavior.
- Effective leadership for stimulating innovation consists of both stimulating the exploration of new ideas and the exploitation of current processes.

Thank you for your attention



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